

## NEGATIVE DECLARATION

Submitting: ☒ Draft  
☐ Final  
☐ Mitigated Negative Declaration

Project Title: Heil Separator Area, Union Carbide Corporation (UCC) Torrance (Mariner Avenue) Terminal Facility  
Removal Action Workplan

State Clearinghouse Number: \_\_\_\_\_

Contact Person: Johnson P. Abraham Phone # (714) 484-5476

Project Location (*Include County*):  
Union Carbide Heil Separator Area  
19500 Mariner Avenue (between Hawthorne Blvd. and Prairie Ave.)  
Torrance, Los Angeles County

### Project Description:

This project provides for approval and implementation of a draft Removal Action Workplan (RAW) for remediation work at the Heil Separator Area, UCC Torrance (Mariner Avenue) Terminal Facility. The RAW is being performed under the terms of UCC's Voluntary Cleanup Agreement (VCA) with the California Department of Toxic Substances Control (DTSC). UCC has agreed to work cooperatively with the DTSC under a VCA to address environmental impacts at the facility from a historic release of a hydrocarbon mixture known as dripolene, which was a by-product formerly produced at the facility during the production of ethylene.

Dripolene is a pyrolysis fuel oil-water emulsion liquid that was generated along with quench water during the thermal cracking process for ethylene production. The Heil Separator Area located in the eastern portion of the facility was utilized for the separation of the dripolene from the quench water. A Remedial Investigation (RI) conducted by Montgomery Watson in 2000 confirmed the release of dripolene in the Heil Separator area (Montgomery Watson, 2000). From the RI, contaminants of concern at the site were identified to include select volatile organic compounds (VOCs), semi-VOCs, and dense non-aqueous phase liquid (DNAPL) (dripolene) within perched groundwater beneath the site. DNAPL is also known as "free product." Historical data (1989-2003) based on the existing deeper groundwater monitoring wells (i.e. wells MW-1 through MW-4) completed in the Gage-Gardena aquifer does not show any impact from the site to the deeper aquifer.

The RAW is a document that details the steps to be taken in the implementation of the selected remedial response actions at the site identified in a Feasibility Study (FS) (URS, 2003a) that was completed in August 2003 and approved by DTSC. The FS identified enhanced free product recovery, and monitored natural attenuation (MNA) or other in-situ technologies as the preferred remedial alternative for the site. In MNA risk reduction is occurs through a combination of natural processes including biodegradation, adsorption, dilution, and dispersion. The RAW describes the process of implementation of these remedial response actions.

Free product recovery will be accomplished using a combination of manual bailing techniques and an automatic free product recovery system. UCC will perform a pilot test using an automated free product recovery system to obtain information for optimized recovery of DNAPL. Information from the pilot test will be used to select the most appropriate pump controller setpoints (e.g. pump on and off cycle times) to maximize pump flow rates. UCC will install and operate the automated free product recovery system if the pilot test demonstrates that more free product can be recovered with the automated system than with bailing or passive skimmers. The automated system will consist of a dedicated submersible "product only" pneumatic pump, pump controller, storage drum, and high-level shutoff. The pilot test is planned for an approximate two-week period following DTSC approval of the RAW. Implementation of the automated product recovery system, if appropriate, would commence thereafter, subject to DTSC concurrence. Based on previous investigation activities at the site, DNAPL has been detected in two monitoring wells (MW-5 and MW-10) near the Heil Separator. DNAPL has been recovered from these wells by manual bailing. Based on the thickness of DNAPL measured

in these wells, there is a good likelihood that automatic product recovery from at least one well would be effective. To date, it is estimated that less than 100 gallons of DNAPL have been removed from the Heil Separator Area.

Other in situ technologies may be considered if, after the free product is removed to the maximum extent practical, groundwater sampling data indicate that MNA is not effective at stabilizing the dissolved-phase groundwater plume in the perched zone. Also, other in situ technologies would be considered if groundwater in the Gardena Gage aquifer becomes impacted by chemicals of concern (COC) from the Heil Separator Area at concentrations greater than maximum contaminant levels or water quality objectives. Other in situ technologies include, but are not limited to, in situ chemical oxidation using Fenton's Reagent or enhanced bioremediation (e.g., nutrient and/or oxygen amendments). The following remedial action objectives have been identified in the FS:

- Remove DNAPL (dipolene) to the maximum extent practical;
- Prevent human incidental ingestion and direct dermal contact with COCs in surface soil that pose an excess cancer risk greater than one in a million ( $10^{-6}$ ) or a Hazard Index (HI) greater than one;
- Prevent human inhalation of VOCs and SVOCs volatilizing from surface soil to air that pose an excess cancer risk greater than  $10^{-6}$  or HI greater than one;
- Ensure existing contaminant conditions do not change so as to threaten human health and/or the environment; and
- Restore water quality, at a minimum, to water quality objectives that are protective of beneficial uses of the Gardena-Gage Aquifer within a reasonable timeframe.

#### Installation of New Perched Zone Groundwater Monitoring Well

A new groundwater monitoring well will be installed on the property west of the source area within the perched zone. Geologic borings will be conducted to determine the most suitable location for the new well. The well installation will take one day to complete. Two to four workers will be at the site during installation activities.

#### Gauging of Groundwater Monitoring Wells

Gauging of on site groundwater monitoring wells will be conducted on a quarterly basis. A total of seventeen site groundwater monitoring wells will be gauged for static water level to monitor groundwater flow and changes in water level. Wells MW-1 through MW-4 are groundwater monitoring wells completed in the deeper Gage-Gardena aquifer. Wells MW-1A, MW-5 through MW-12, MW-13A, MW-14A, and MW-16A are perched aquifer monitoring wells. All well locations are depicted on Figure 1-2. These monitoring wells will also be checked for the possible presence of liquid-phase hydrocarbon and gauged for static depth(s) to DNAPL. Each time a well is gauged, the depth to the bottom of the well will also be checked for the presence of DNAPL. All measurements will be recorded on a well gauging sheet. All well gauging equipment will be washed between each use using a soapy wash, rinsed with clean water, and followed by a thorough rinse by deionized water. The recovered DNAPL, purged groundwater, and decontamination water will be collected in Department of Transportation (DOT)-rated drums and stored at the project site. The drums will be appropriately labeled with general information, including the following data: location, contents, contact information, and the statement "pending analytical testing."

#### Implementing DNAPL Recovery System

DNAPL has been observed in monitoring wells MW-5 and MW-10 during previous groundwater monitoring activities. UCC will install an automated DNAPL recovery system at wells MW-5 and/or MW-10 to perform a pilot test and determine the effectiveness of this technology. The automated system will consist the following components:

- § 4-inch DNAPL pump for each well location;
- § 4-inch well cap for each well location;
- § An electronic timer with tank shutoff;
- § Product discharge tubing;
- § Air supply tubing;
- § Air exhaust tubing;
- § Air source for the pump (gas cylinder or air compressor);
- § Power source for the timer (110 AC or 12v DC battery);
- § Safety rope; and
- § Valves for both air and product lines.

During gauging events when the automated DNAPL recovery system pilot test is not running in monitoring wells MW-5 and MW-10, manual removal of DNAPL from these wells, or other wells in which DNAPL is measured, will be performed using a disposable bailer until the automated system is installed. Bailing will continue, either manually or automatically, until significant volumes of DNAPL can no longer be collected from the well. Bailed DNAPL, groundwater, and equipment decontamination water will be placed in labeled 55-gallon drums that will be temporarily stored on site until they are disposed of at an appropriate off-site facility. Used bailers and personal protective equipment (PPE) will be disposed off site at a permitted facility. The total volumes of DNAPL and groundwater removed from the well will be recorded on a well gauging sheet.

#### Groundwater Sampling

All seventeen monitoring wells will be sampled on a quarterly basis. Previous groundwater sampling events indicated that monitoring wells MW-5 and MW-10 contained DNAPL. MW-5 and MW-10 were undergoing continuous, manual DNAPL bailing; therefore, they were not sampled during these annual events. Samples will also be collected from these wells.

The project is anticipated to commence upon project approval and last two years. The estimated completion date is 2006. A deed restriction will be placed on the site at a future date to preclude sensitive uses.

#### Findings of Significant Effect on Environment:

*(A copy of the Initial Study which supports this finding should be attached.)*

After conducting an Initial Study of the potential environmental impacts for the proposed project, DTSC has determined that project implementation will not result in any significant environmental impacts. Refer to the attached Initial Study.

#### Mitigation Measures:

DTSC has determined that no additional mitigation measures would be required beyond those incorporated as part of the project to ensure that impacts would be less than significant.

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DTSC Branch Chief Signature

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Date

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Thomas M. Cota

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Branch Chief

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DTSC Branch Chief Name

DTSC Branch Chief Title

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